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ABSTRACT

A rationale and suggested approach for providing prevocational skill development to handicapped students are described. A comprehensive approach should include instruction in academic skills related to vocational training, instruction in daily living skills, guidance in personal and social adjustment skills, vocational assessment, and experiences to promote occupational readiness and exploration. Collaboration among vocational and special educators and counselors is stressed. Objectives of a vocational assessment service are outlined, and its three major components (work sampling, psychometric testing, and critical observation of behaviors) are considered. Vocational assessment is further examined in terms of referral reasons, interpretations and application of reports, and collaboration with special education. Ways in which special educators can help develop occupational exploration and readiness skills (such as by using career oriented reading materials and school resources) are described. Related vocational academic instruction and competency areas in daily living skills and in personal-social skills are discussed. (CL)

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Prevocational Skill Development for Handicapped Students

A Cooperative Project Between the Maryland State Department of Education, Division of Special Education and the University of Maryland, Department of Industrial, Technological and Occupational Education

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EC 160 455

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What is Prevocational Education?

Prevocational education is instruction that helps students learn about themselves in relation to the world of work. The goal of prevocational education is to help students develop their interests and skills so they will be ready for vocational training programs. Comprehensive prevocational education includes:

- instruction in academic skills related to vocational training
- instruction in daily living skills
- instruction and guidance in social and personal adjustment skills
- vocational assessment
- experiences to promote occupational readiness and exploration

Prevocational education is particularly important for handicapped students who may need extra assistance to prepare for vocational training. Prevocational programs for handicapped students are most effective when they are the product of cooperation between special education and vocational education teachers.

Related Academic Skills

Related academics are reading and math skills students need to succeed in vocational training or on the job. Students need basic skills such as reading and understanding directions and making accurate measurements to be successful in vocational training and job placement. Related academic instruction should be taught in the context of real life demands. For example, having students complete a worksheet on fractions can be less effective than having students use fractions to measure a piece of wood or cloth for a project. Related academic instruction is most effective when special education teachers and vocational instructors work together to determine what skills students need to be successful in different vocational programs.

Daily Living Skills

Daily living skills are those skills that an individual needs to function in society. These skills include telling time, using telephones, using transportation systems, and shopping and menu planning. Cooperation between teachers and parents is important to ensure that students learn and use these skill.

Social - Personal Adjustment Skills

Deficits in social and personal adjustment skills often cause handicapped students to have problems in vocational training and employment. Adjustment training can focus on helping students to learn socially acceptable behavior. Discussions and role-plays on communication skills and good grooming are effective techniques to help prepare students for the interpersonal demands of adolescence and adulthood. Each teacher and counselor who works with special education students can share the responsibility for guiding and reinforcing appropriate behavior.

Vocational Assessment

Vocational assessment is a way of evaluating a student's interests, aptitudes, and abilities in relation to the world of work. Vocational assessment can be approached in different ways. Some school systems have vocational evaluation units where students spend a concentrated period in formal assessment. Other systems have more informal assessment procedures where special education teachers use interests surveys, work samples, and a variety of hands-on activities in the classroom to get an indication of a student's vocational readiness. Guidance counselors, special education teachers, vocational education teachers, vocational evaluators, and parents should all be considered valuable resources in the process of assessing a student's vocational potential.

Occupational Readiness and Exploration

Occupational exploration activities help students learn about the world of work. Occupational exploration can take a number of forms. Students can learn about different jobs through books, filmstrips, and movies, or they can have a more active role in exploring occupations through field trips and job shadowing.

Occupational readiness activities help prepare students to find employment. Reading want ads, filling out job applications, and participating in mock job interviews are ways students can be prepared to enter the job market. Special education and vocational education teachers and guidance counselors can work together to develop community contacts so students can learn about the world of work from employers in the community.

Summary

Prevocational education is a way of preparing students for vocational training. In planning prevocational programs, educators should consider the unique needs of the students being served as well as the resources of their particular school and school system. Collaboration among special education, vocational education, and counselors is the key ingredient to a successful prevocational program.

Vocational Assessment

Vocational assessment (or vocational evaluation) is an educational tool beneficial to both student and educator alike, for it helps both to gain a better understanding of the student's interests and abilities, and will help to determine what direction the student's vocational education should follow. A student's vocational assessment should be constantly updated and reevaluated as a student progresses through various stages of vocational development.

Vocational assessment services can be provided in a number of ways depending on the school system. In some cases, special educators conduct an informal vocational assessment in the classroom. Some school systems refer students to a vocational evaluation program at a rehabilitation agency if vocational assessment services are not available in their schools. Other school systems have their own vocational assessment units with trained evaluators to assess handicapped and disadvantaged students' vocational interests and abilities.

Whether a student participates in a formal vocational evaluation conducted by vocational evaluators or participates in vocational assessment activities in the special education classroom, it is important that several objectives be kept in mind:

- To assist the student in obtaining a good self-image and awareness of his/her vocational interests, aptitudes, and potential.
- To provide practical work samples in order to evaluate manipulative skills, work behaviors, attitudes, and tolerances.
- To provide a series of psychometric tests which would assess the individual's personal interests, manipulative skills, vocational potential, physical and mental factors, and adjustment to achievement levels.
- To develop student awareness of the physical, educational, academic and training requirements of various occupational areas, particularly those in which he/she has the aptitude, interests, preferences, manual dexterity, and occupational potential to function successfully.
- To develop student awareness of certain work behaviors and attitudes which are expected in the world of work.

- To provide accurate data and relevant information resulting from the vocational assessment to persons involved with the student.

- To assist in formulating future vocational curricula/educational programs geared around the student's personal preferences.

Vocational assessment should be an on-going process and special education teachers can structure activities and experiences that allow students the opportunity to continually examine their interests, skills and aptitudes. Actual "hands-on" activities (or work samples) and interest testing can be enhanced by allowing students to continue exploring occupational interests through career education activities, job shadowing (sampling), field trips and in-class occupational exploration activities.

How To Work Cooperatively With Vocational Evaluators

In school systems with vocational evaluation units, it is important for special educators to get to know the vocational evaluators and gain an understanding of the vocational assessment process. Becoming acquainted with work samples, the tests administered, and the purpose of the vocational assessment report can assist special educators and guidance personnel in determining appropriate vocational placements for students. Together, the special educators, vocational evaluators and vocational instructors can come up with ideas to prepare students with the prerequisite skills needed for vocational education.

Vocational assessment consists of three major components: work sampling, psychometric testing, and critical observation of behaviors (Vocational Student Assessment, 1980).

Work Sampling

Work samples are "hands-on" activities which use tasks, materials, and tools similar to those found in an actual job. Commercial work samples systems such as Singer Graflex, Project Discovery, TAPS, VIEWS, and MIND are often found in evaluation units. Commercial work samples cover a wide variety of tasks. Students may be instructed to plumb a sink, follow electrical wiring diagrams, learn how to take a pulse, or sort items by color or numbers. Commercial work samples are normed and timed according to workers in industry. "Homemade" work samples can be developed by the vocational evaluators, special educators and vocational instructors to replicate activities found in a specific job or vocational classrooms. Some vocational evaluation units simulate a task from each area of the vocational programs. Students may be asked to lay a four foot wall, make a corsage, or repair a dent in an auto fender. While homemade work samples are not generally normed and timed according to industry, they offer students a chance to explore activities in vocational programs or employment opportunities in the local community and are less expensive than commercial systems. Work samples assess an individual's abilities, interests, and work related behaviors. Students often enjoy this type of assessment more than traditional paper and pencil tests.

Psychometric Testing

Psychometric tests measure a student's aptitude, interests, academic achievement, and dexterity. Although special educators or guidance counselors can supply much of the needed information on a student's present academic achievement, vocational

evaluators often administer additional tests to supplement this information. Interest tests such as the Wide Range Interest-Opinion Inventory (WRIOT) and CASE, often provide the evaluators with an area of interest for each student to begin vocational exploration. Many evaluators administer more than one interest inventory and also pay close attention to the student's expressed interests. Achievement tests such as the SRA Reading and Math Indicies provide the evaluators with an idea of the student's reading and math abilities. It is interesting to note whether these scores correspond to similar tests that students have taken in the classroom. Other tests such as the Bennet Mechanical Comprehension Test, SRA Clerical Aptitude Test or the General Aptitude Test Battery are administered, depending of the student's interests. Generally, these tests can be modified to meet the needs of the student. If a student experiences difficulty with reading, a written test can be read orally or recorded on a cassette tape. Many interest inventories are pictorial and require little or no reading.

Critical Observation

Throughout the evaluation process, vocational evaluators pay particular attention to a student's personal, social, and work related behaviors. Observations of a student's expressed interests, productivity, ability to follow directions, and personal appearance, as well as the ability to get along with peers and supervisors, are important criteria for determining a student's readiness for vocational placement. It is important to note how the student behaves outside the classroom when he/she is engaged in hands-on activities and being observed by someone other than a classroom teacher. Generally when a student begins the assessment process, some type of initial interview is conducted. During this time, the evaluator notes the student's expressed interests and goals, appearance, motivation, etc. At the close of the assessment process, another conference is held with the student to discuss the results of the psychometric testing, work sampling, and exploration experiences. The evaluator usually pays particular attention to what the student liked doing the best, what type of vocational plans he/she might have for the future, and how the student's expressed interests can be integrated into the recommendations generated in the vocational assessment report.

Why Refer a Student to Vocational Assessment

It is important for special educators, guidance personnel and parents to be familiar with the vocational assessment process so appropriate student referals can be made. To get the most useful and relevant information on a student, the student's teachers and counselors should ask specific questions of the vocational evaluators. Specific referral questions might include the following:

- Are the student's vocational goals realistic?
- Will a specific handicap limit vocational training or employment opportunities?
- What type of work will the student be able to do?
- What are the student's vocational interests?
- What type of training does the student need for his/her expressed interests?
- Does the student display appropriate personal, social, and work behaviors?
- Are there deficiencies in prerequisite skills needed for entrance into specific vocational programs?

Appropriate referral questions help ensure that the data and information in the vocational assessment reports can be used in formulating vocational goals and plans for the student's Individualized Educational Plan. This information can also be used to inform vocational instructors or employers of a student's specific vocational interests, strengths, aptitudes, and behaviors. Vocational evaluators, special educators, and vocational instructors can work together to develop realistic short and long-term vocational goals for handicapped students.

What to Look for in Vocational Assessment Reports

Most vocational assessment reports include an introduction, biographical data, results of psychometric testing and work sample performance, behavioral observations, a summary, and recommendations. Special educators, guidance counselors, and parents may find it helpful to visit the vocational assessment unit and become acquainted with the work samples and tests administered so they can interpret and use the results of a student's vocational assessment more effectively. The vocational evaluators will clarify any part of the vocational assessment which is unclear or incomplete in a call or conference.

When reviewing the vocational assessment report, Tindall (1980) indicates it is helpful to look for:

1. math and reading levels (Are these scores consistent with the other similar tests the student has taken?)

2. vocational interests (tested interests and expressed interests) and aptitudes

3. comments about personal, social and work behaviors

4. physical capacities and limitations

5. description of the student's preferred learning style (Does the student follow oral directions better than written directions?)

6. answers to specific referral questions

7. short and long term recommendations

Recommendations in a vocational assessment report can range from suggestions for remedial education to personal counseling or placement in vocational programs. Since vocational assessment is one component of career/vocational education, it is important that students receive the services or instruction specified in the report to overcome any problems which might be barriers to future training and/or employment. If recommendations for vocational training or employment are generated, it is important that special educators work with the appropriate personnel to make sure the recommendations are implemented. Vocational evaluators often work cooperatively with guidance counselors or vocational support service team advocates to implement recommendations.

Applying the Results of Vocational Assessment

Since vocational assessment can provide a basis for vocational and career planning for handicapped students, it is crucial that collaborative efforts be developed among special educators, vocational evaluators, guidance personnel, and vocational educators to provide comprehensive career/vocational services. Special educators can use the information obtained in the vocational assessment process to assist students in their vocational development and establish collaborative efforts in a number of ways:

1. If the student is deficient in prerequisites needed to enter a vocational program or employment situation, work on these skills during class time. Prerequisite skills might include:

   - o related academics such as math skills needed for specific vocational areas and identifying key vocabulary words
   - o personal adjustment skills such as proper hygiene, appropriate grooming, and dress
   - o work related behaviors such as attendance, being on time, accepting responsibility, completing tasks

   During class, teachers should stress how these skills relate to actual vocational training and future employment. Curriculum guides and books from vocational instructors could be a valuable resource when working on prerequisite skills.

2. Continue vocational exploration activities, especially in specified areas of interest. This can be done through:

   - o providing occupational information in the classroom by using career education materials, the Occupational Outlook Handbook, the Dictionary of Occupational Titles, and information on training and employment opportunities in the community
   - o arranging field trips in the community
   - o bringing in guest speakers or parents from various areas in business or industry
   - o arranging for students to participate in job sampling or job shadowing in the school or community
   - o visiting vocational programs in the high school or technical center

3. Develop in-class activities, with the assistance of the vocational evaluators, that provide a continuation of the exploration of interest, abilities, and occupational clusters. Interest tests, homemade or commercial work samples, and "hands-on" activities may be helpful.

4. Follow up on the recommendations made in the vocational evaluation report for specific services. Check with school and community personnel to determine if recommendations for counseling, psychological evaluations, medical services, or family related services have been implemented when they are specified for students.

5. Develop collaborative efforts with the vocational instructors and the vocational evaluators when planning the student's IEP. Since the vocational evaluation report can provide a summary of the student's academic abilities, vocational interests, and strengths and weaknesses, this information can help participants of the IEP meeting to develop realistic vocational goals for the student.

6. Organize a committee of special educators, vocational educators, and vocational evaluators to outline prerequisite skills needed for each vocational area.

7. If vocational resource personnel are available in your school system to assist students once they are placed in a vocational program, develop collaborative efforts and continue related instruction in the classroom. If vocational resource personnel are not part of the school staff, act as a resource person to vocational instructors. Suggest ways to modify materials, use peer tutoring, and try alternative methods to testing for specific students.

8. Special educators and guidance personnel should develop a contact person at the Division of Vocational Rehabilitation if it appears the student will not be job ready by the completion of high school. The information from the student's Individualized Education Plan and results of the vocational evaluation can be incorporated into an Individualized Written Rehabilitation Plan (IWRP) when necessary.

Vocational assessment can be a valuable resource for determining an individual's vocational strengths, interests and abilities. It is an important component of providing comprehensive career/vocational services to handicapped students. If your school system offers vocational evaluation services, get to know the vocational evaluators and become familiar with the various aspects of the assessment process. Collaborative efforts between special educators and vocational evaluators are essential to provide appropriate vocational education for handicapped students.

Vocational Assessment in the Special Education Classroom

Special educators can work with the vocational evaluators to identify and develop prerequisite skill areas that a student may need help with. If no vocational assessment services are available, there are a number of ways that the special educator might develop prevocational or prerequisite vocational activities.

1. Visit and meet the vocational instructors. Ask for a copy of the text used in the program, worksheets, etc. Instruction could focus on vocational vocabulary and math needed in the vocational classroom. Determine what prerequisites are required for a student to enter a specific vocational area (see the Cooperative Agreement Section). With this information, you should be able to help prepare students for entry into vocational programs and/or employment opportunities.

2. Visit business and industry sites in the local community to determine what types of entry level jobs exist. Note the work environment and investigate what skills and competencies are needed in specific jobs (a "Job Analysis Form" follows this page). Identify tasks or behaviors that can be taught or encouraged in the special education classroom.

3. Develop simple "hands-on" activities (work samples) that allow the student to "sample" a job or vocational area. These do not need to be elaborate or expensive! Included in this section is an outline for developing work samples.

4. Stress the importance of appropriate social and work behavior in the classroom.

5. Administer interest inventories periodically and have students investigate their areas of interest through occupational exploration.

Taken in part from:

Neubert, D. Vocational assessment for handicapped students. The Pointer, (26), 4, 1982.

Occupational Exploration and Readiness Skills

What is Occupational Exploration and Readiness Skill Development?

Occupational exploration and readiness are components of secondary career education programming. The purpose of this phase of career education is to make students aware of diverse job possibilities so they can develop the specific skills needed to obtain jobs of their choice. Brolin (1978), has divided this area into six general competencies.

1. Knowing and Exploring Occupational Possibilities

Students need to learn about the wealth of jobs that are available both in their community and in general. Teachers need to help students systematically learn about the world of work and how their interests and abilities relate to jobs. This should be done in a variety of ways. "Field trips, community speakers, summer work experience, state employment service, films, and literature must be made available in a concentrated fashion." (Brolin, p.8).

2. Selecting and Planning Occupational Choices

Many important decisions are made during students' adolescent years that affect the rest of their lives. The secondary courses that students take will certainly affect their ability to meet differing job demands. Students need time to learn about themselves, identify their interests, and experience different jobs so they can determine what school experiences will lead them to a job they would like.

3. Exhibiting Appropriate Work Habits and Behaviors

Appropriate work habits and attitudes are crucial to job success at all levels. "It is important for educational programs to simulate working environments in the school setting besides those available in the community in order that appropriate work behaviors can be learned. Too many students possess a false conception of the characteristics of a good worker and do not develop the type of skills needed for entry level jobs." (Brolin, p.9).

4. Exhibiting Sufficient Physical-Manual Skill

Many entry level jobs demand fine and gross motor skills as well as good physical strength. Students need opportunities to develop these skills as well as to develop the academic skills that are so heavily stressed in most high schools.

5. Obtaining a Specific Occupational Skill

"Learning a specific job skill will not pigeonhole students for life and will not disqualify them later for work or training in another occupation. Vocational education and on-the-job training while attending the secondary program are crucial to a student's ultimate level of vocational attainment." (Brolin, p.9). Special education teachers must often act as advocates so that handicapped students are successful in vocational programs where they can gain specific job skills.

6. Seeking, Securing, and Maintaining Employment

"One of the greatest problems students are facing is not knowing how to find, apply for, and maintain employment. Students must learn the strategies to secure employment and the resources available to help them when they need assistance (e.g., state employment service, vocational rehabilitation, social services, rehabilitation facilities, want ads)." (Brolin, p.9).

Career Education Service

Students need specific skills and knowledge to choose intelligently and realistically from the options and opportunities available in higher education and the world of work. First, they need a clear understanding of their own strengths, interests, potential, and values. Next, they must have accurate information about the nature and structure of the world of work, including specific jobs or careers available and their entry requirements. Finally, students must possess decision-making and planning skills which will help them enter and succeed. The competencies needed to enter the world of work are important to all students, but they are critical to handicapped students whose past opportunities have often been limited by barriers, bias, and stereotyped notions.

Direct exposure to a variety of work settings and the people who are employed in them can help identify handicapped students who are ready to participate successfully in the regular vocational education programs. Simulated job experiences and sheltered workshops are generally inadequate in providing realistic work environments.

While career education experiences should be integrated in the curriculum throughout the elementary and secondary years, it may be necessary to establish special programs for handicapped students who have not had the opportunity to prepare for vocational assessment and training. Some examples of typical prevocational activities include the following:

- The opportunity to have "hands-on" experiences in the development of basic occupational skills. This may include special skill training related to the handicapped, including the use of special aids and appliances to accomplish tasks.

- The development of personal and social skills that affect employability, such as communicating effectively and developing good work habits.

- The opportunity to develop and practice job seeking, job finding, and job keeping skills in real or simulated situations. Activities included may involve the completion of applications, appropriate responses to advertisements, preparing for the job interview, and using public transportation.

- Career awareness, exploration, and decision-making experiences to examine careers, job clusters, or specific jobs.

- General vocational skills which involve math, reading, and perceptual or manipulative abilities.

Taken in part from:

Cooperative Planning for the Handicapped: Resource Manual, Maryland State Department of Education, 1980.

Strategies Special Educators Can Use To Develop Students' Occupational Exploration and Readiness Skills

There are many ways a special education teacher can help students with occupational exploration and readiness. These strategies can be divided into four areas:

- relating classroom instruction to the world of work
- sponsoring special events
- using school resources
- involving students in community businesses

Any specific material that is described in the following sections can be found in the resource section of this chapter.

Relating Classroom Instruction to the World of Work

It is not always possible to offer a separate class in career or prevocational education, but you can integrate career education concepts and strategies into existing programs.

Use career oriented reading materials. There are a number of high interest-low reading level series for secondary students. Scholastic Press has ACTION books which deal with job problems. Janus Publishers has a series of story pamphlets that introduce different jobs. SRA sells a multi-reading level career reading series called THE JOB AHEAD.

Make science and social studies more relevant to the world of work. The Maryland Department of Education, Division of Vocational-Technical Education has sponsored a project to develop a middle school prevocational orientation program. This is an excellent teacher's manual with learning activity packages referenced to jobs and academic instructional areas. Jobs and activities related to math, english, science and social studies are listed.

Teach job seeking, securing, and maintaining skills. This can be a component of any special education program. Filling out forms, conducting mock job interviews, learning about employment resources, role playing and discussing good work behavior are important activities that can be more easily developed and monitored in special education classes where there is a reduced student-teacher ratio. An excellent and inexpensive resource is Job Readiness Training Curriculum by Dennis G. Tesolowski.

Include class projects as part of units of instruction. Projects can help students see the relationship between basic skill instruction and occupational demands. Sewing, cooking, and small construction projects can be incorporated into reading, math, science, and social studies lessons. Middle school special education teachers in St. Mary's County have developed a guide with a set of six projects that can be used to help students relate prevocation skills to real job demands.

Sponsoring Special Events

Field trips. One of the best ways to have students learn about jobs in the community is to have them actually observe workers performing their jobs. PTA's and different civic groups can be contacted to help raise money for field trips. Project CAST, in Charles County, has developed a field trip form that can be used to help structure students' observations.

Speakers. Many businesses are willing to release workers to talk to school groups about their jobs. Having real workers talk about the demands of their particular jobs can have more of an impact with students than teacher lectures or book assignments. Finding workers with different disabilities can help students come in contact with handicapped role models. Contacting and hosting speakers can be coordinated among different teachers so that a class other than just the special education class can be included.

Career days. School-wide career days give students the opportunity to choose from a number of representatives from different occupations to gain more information about jobs in the community. Such a school-wide event can be coordinated with the guidance department.

Using School Resources

Vocational course sampling. Special education teachers can work with vocational teachers to arrange for special education students to visit different vocational classes. Students can spend one period a week visiting different vocational classes to experience the demands of those courses. When students visit these programs, they should be included in the regular class activities as much as possible. If arrangements cannot be made for students to attend different courses, the vocational teachers can work with the special education teachers to develop sampling experiences that can occur within the special education classroom. For example, the electricity teacher can help to develop a simple wiring project or the business education teacher can develop some filing or typing activities that students can try.

In-school work experience and job shadowing. Working side-by-side with regular school workers can help students learn about different jobs and their requirements. Students can rotate through different job areas so they can measure their interests against a number of different experiences. Feedback from the school workers as well as students' discussions about their experiences can help special education teachers and counselors guide students into appropriate vocational areas.

Involving Students In Community Businesses

Community work experience and job shadowing. Many special education programs are helping their students participate in community work experiences. This can be in the form of job shadowing where students work with a particular employee and perform some of the employee's duties. Some programs promote paid and unpaid work experience where a student is given on-the-job training and eventually performs the duties of a regular employee.

Components of Prevocational Education - Related Academic Instruction

Related academic instruction in prevocational education refers to the development of basic reading, writing, and math skills students need in order to be successful in vocational training programs. Related academic instruction is usually the responsibility of the special education teacher. Since related academic skill instruction should be directly related to the demands of different vocational programs, it is important for special education teachers to learn about the academic requirements of various vocational programs available to students.

One very effective method of determining basic academic skill requirements is for special education teachers, work/study coordinators, special vocational instructors, and regular vocational education instructors to meet to discuss skills students need to be successful in the different programs.

Listed below are related academic skills that vocational education teachers have identified as important for their particular areas.

BUSINESS EDUCATION

Reading Skills

1. Look up words in a dictionary
2. Alphabetize names
3. Use a telephone book
4. Read and write names and addresses
5. Read directions to fill out forms
6. Write in complete sentences
7. Know the basic parts of a letter
8. Divide words properly

Math Skills

1. Compute basic addition, subtraction, multiplication, and division problems

AUTO MECHANICS

Reading Skills

1. Read safety rules
2. Read names of tools, machines and materials used in class
3. Write short reports
4. Read specification manuals
5. Write work tickets

Math Skills

1. Measure to 1/16"
2. Perform fractions and decimals calculation
3. Measure angles and distances
4. Perform addition, subtraction, multiplication, and division problems

Vocational instructors can share materials and ideas for related academic skill activities with special education teachers. For example, a typing teacher can lend a special education teacher an unused typewriter to help students learn how to set margins. An auto mechanics instructor can identify vocabulary that students need to be able to read and comprehend. The special education teacher can include the vocabulary in his/her reading instruction. There are also commercially available curricula which can be used to teach academics in a functional way.

The key to appropriate related skill instruction is for students to know the type of vocational training they want so special education teachers can help them develop the basic skills they will need to succeed in the appropriate vocational training program.

Related Vocational Academic Instruction in the Classroom

Meet with Vocational Instructors/ Work Experience Coordinators

Vocational instructors are usually quite willing to discuss the skill deficits that cause students the most problems in their classes. The section on local cooperative agreements contains a format that special education teachers and vocational instructors can use to determine related academic/prerequisite skills needed to succeed in vocational areas.

Pretraining and Reinforcement

There are two main ways special education teachers can help their students with the academic skills needed to succeed in vocational courses. The first way is to provide pretraining in vocabulary, concepts, and performance demands. The Support Services Team at Howard Vo-Tech has developed a booklet of commonly used terms and their definitions for many of the vocational classes offered at their vocational center (an example from one of their booklets is included in this section). These booklets can be used by special education teachers to give students pretraining in a vocational subject before the student enrolls in the program. The second way special education can help students with vocational academics is to provide activities to help reinforce vocabulary and concepts students are currently being taught. This requires a simple form that the student can carry between the special education class and vocational class on which the two teachers can note what they are currently teaching the student and upcoming tests and assignments.

Hands-On Activities

Students need to practice performing activities which require them to apply academic skills. For example, measurement is a key math skill for success in any vocational area. Vocational instructors are very vocal about their concern about lack of student measurement skills. The best way to teach students to measure is to have them work on projects which require them to measue, i.e., calculating margins for typing, preparing ingredients for cooking, and figuring measurements for construction. Two common deficits in special education measurement instruction is the lack of hands-on activities and the short amount of time spent in measurement activities. Students need to work on measurement skills throughout the school year rather than focusing on

measuring skills as an isolated math unit. Likewise, with other academic skills, paper-pencil worksheet activities should be used in conjunction with actual performance tasks to help students apply the academic skills they are using to real like job demands.

Using Vocational Material to Teach Reading and Writing Skills

Special education teachers can use vocational/industrial arts content as part of language arts and math instruction. Examples of vocational language arts activities that have been developed by teachers in Prince George's and Frederick Counties can be found on the following pages. There is also a series of readers called Vocational Reading Skills: Shoptalk which can be used in reading instruction to support vocational vocabulary and reading concepts.

Project Basic

The objectives found in the reading and math sections in Project Basic tie into related academic instruction that prepares students for vocational training and independent living in the community. Suggested instructional activities can be found in: The Maryland Functional Reading Manual Vols. One and Two, MSDE, 1975, and The Maryland Functional Mathematics Manual, MSDE, 1979.

Daily Living Skills

Daily and/or independent living skills are those skills that an individual needs to function in society. Most students will marry, own homes, manage finances and do many of the things that teachers and parents often take for granted. In some cases, parents may be over protective of special needs students, and it is important that classroom instruction includes: using community resources, how to manage finances, conforming to laws, etc. Daily living skills can encompass a wide variety of activities and be integrated in special education instruction in many ways.

Competency Areas in Daily Living Skills

Brolin (1978) identifies nine competencies in the curriculum area of daily living skills:

1. Managing Family Finances
2. Selecting, Managing and Maintaining a Home
3. Caring for Personal Needs
4. Raising Children and Family Living
5. Buying and Preparing Food
6. Buying and Caring for Clothing
7. Engaging in Civic Activities
8. Utilizing Recreation and Leisure Time
9. Getting Around the Community Mobility

Many of the competencies associated with daily living skills are important in relation to finding and keeping a job. Students not only need to learn job skills but also how to dress appropriately for work, practice good personal hygiene, use community transportation to get to and from work, and interact appropriately with supervisors and co-workers. It is equally important for students to know how to prepare nutritious meals, manage a home or apartment, manage finances and use leisure time appropriately if they are to become productive members of society. Activities and instruction focusing on daily living competencies are particularly effective when there is communication with the home and parents reinforce or extend classroom instruction.

Adjustment Curriculums

In the field of rehabilitation, emphasis is placed not only on acquiring vocational skills, but also on behaviors that enable clients to become a functional member of the community he/she lives in. The term "adjustment services" is used to teach clients acceptable social, emotional and work behaviors. Curriculum materials and other resources found in the area of rehabilitation may be excellent resources for special educators to use in the classroom. Following is an example of a curriculum outline:

Adjustment to Problems of Daily Living
Content Outline

I. Community Living

A. Responsibilities
   1. Responsibilities of a community to its citizens
      a. Civil servants
      b. Education
      c. Transportation
      d. Sanitation
      e. Communication
      f. Emergencies
      g. Protection

   2. Responsibilities of citizens to the community
      a. Care of personal and public property
      b. Voting
      c. Legal requirements
      d. Taxes

B. The Law
   1. Traffic laws
      a. Cars
      b. Pedestrians

C. Emergencies
   1. Fire
   2. Police
   3. Medical

D. Communication
   1. Postal services
   2. Telegrams
   3. Telephone

E. Transportation
   1. Types
      a. Car
      b. Bus
      c. Train
      d. Airplane
      e. Walking

2. Basis for selection
   a. Time
   b. Money
   c. Distance
   d. Convenience

II. Safety

A. Safety precautions in the community
   1. Public places
      a. Parks
      b. Swimming pools
      c. Street safety

   2. Travel safety

   3. Survival reading
      a. Street signs
      b. Traffic signs
      c. Labels
      d. Phone numbers

B. Safety in the home
   1. Hazards
      a. Source of burns
      b. Electrical
      c. Poisons
      d. Source of falls

   2. First aid

III. Budgeting and Banking

A. Money
   1. Recognition of money
   2. Making change

B. Budget
   1. Salary
      a. Gross salary
      b. Deductions and net salary

   2. Planning budget based on salary
      a. Shelter
      b. Food
      c. Clothing
      d. Transportation
      e. Utility bills
      f. Insurance
      g. Savings
      h. Recreation

C. Banking
   1. Savings accounts

   2. Checking accounts
      a. Maintaining balance
      b. Writing checks
      c. Keeping accurate records

D. Credit and loans
   1. Charge accounts
   2. Interest rates
   3. Loan companies

IV. Shopping Techniques

A. Preplanning
   1. Items needed
   2. Quality and quantity

B. Food store
   1. Nutritional foods
   2. Maintaining food budget
   3. Units of measure

C. Clothing store
   1. Clothing needs
   2. Sizes
   3. Quality of clothing
   4. Best buys in clothing

V. Insurance

A. Medical
   1. Hospitalization
   2. Disability

B. Life

C. Automobile

D. Property

VII. Leisure Time Activities

A. Recreation
   1. Indoor
   2. Outdoor

B. Scheduling activities
   1. Time involved
   2. Cost
   3. Variety

C. Boredom
   1. Causes
   2. Dangers

From: Adjustment Services in Rehabilitation: Emphasis on Human Change. Materials Development Center, Univ. of Wisconsin-Stout, September 197

Meet with Home Economics Instructors, Vocational Instructors, Work Experience Coordinators

Many of the activities and instructional materials used in home economics, food services, nurse aide and other courses could be reviewed or modified in the special education classroom. The Maryland State Competency Based Vocational Curriculum which can be obtained from the Research and Development Center may offer ideas for activities. (Also see the Program Section in this manual. The programs described include daily living skills in their curriculum.)

Community Resources

By utilizing community resources such as: bringing in guest speakers, taking field trips, having students explore the community through assignments with their parents, etc.; independent living skills can be stressed in addition to students learning about careers in the community. Students need to learn how to get around in their community, what agencies provide what type of service and what types of community recreation and leisure activities are offered.

Personal-Social Skills

Personal-social skills are the most important set of competencies that directly relate to success on the job or in regular vocational training programs. Brolin (1978) has targeted seven competencies that define this skill area.

-achieving self-awareness

-acquiring self-confidence

-achieving socially responsible behavior

-maintaining good interpersonal relationships

-achieving independence

-achieving problem solving skills

-communicating adequately with others.

Low self-esteem, poor social judgement, and lack of resourcefulness are common characteristics of learning disabled and mentally retarded adolescents. These characteristics coupled with many handicapped adolescents' lack of success in school can cause these students to develop defensive attitudes toward both peers and teachers alike. Special education teachers can help their students be more successful in school and work by developing classroom activities that help students gain self-confidence and communication skills. Students need instructional experiences that can help them learn about their unique strengths and interests as well as remedial instruction in deficit areas.

> A major cause of adolescents' unproductive behavior is that adolescents often lack skill in effectively communicating their needs and wants. Neither home nor social institutions provide adolescents with adequate skill development in communication and problem solving. Consequently, any attempt to assist adolescents in effectively coping with their environment must include a well-conceptualized and thoughtful approach to teaching these skills. (Jones, 1980, p. 93)

Special education teachers can help their students be more successful in school and future work situations by developing classroom activities that help students gain self-confidence and communication skills.

What Can Special Educators Do in the Classroom?

Provide Role Models

By including student aides and peer tutors in special education classes, students get the opportunity to interact with non-handicapped students and to observe them in their job of teacher's assistant. These aides can model appropriate behavior and can encourage special education students to behave appropriately.

Simulations

Special education teachers can adapt the classroom environment to make it more worklike. For example, having students use a time clock can reinforce punctuality. Giving students weekly performance reports can give them feedback on the appropriateness of their behavior and the adequacy of their work habits.

Teachers can also use role playing situations to help students to learn how to react to certain situations found in school and on the job. Role playing situations might include: taking a coffee break, reacting to teasing, responding to unclear directions, and expressing anger in socially acceptable ways.

Behavior Contracting

Behavior contracting can be helpful in working with students to eliminate bothersome behaviors and to find ways to constructively change their behavior. Students work toward a positive behavior with the contingency that he/she will be rewarded if the terms of the contract are met.

Structure Group and Individual Work Sessions

To help students learn to work both independently and cooperatively, teachers can structure classwork so that class activities require a variety of work skills. Often school work is totally based on individual assignments and students have little opportunity to learn to work cooperatively. Group assignments should be carefully structured to help students learn strategies for completing group assignments. Responsibility should be delegated to each student. Students should be given feedback on their performance on both individual and group tasks. An example of group learning is the Maryland Plan which is found in some industrial arts classes. For more information see: Maley, D. The Maryland Plan.

Brainstorming

To help students learn to communicate orally and to have experience in problem solving, brainstorming sessions should be encouraged. Teachers can present problems, both real and imaginary, for the class to discuss and suggest solutions. Students should be encouraged to respond to each other in constructive ways and to try out the solutions they propose.

Structuring Two-Way Feedback

Classroom communication can be enhanced by both students and teachers evaluating the activities of each week. This can be accomplished by use of a structured feedback form. For example students could be asked to respond to the following prompts: (1) name one new thing you learned this week; (2) Describe the class activity you liked best; (3) Describe the skill you are interested in learning; (4) Suggestions for next week. A teacher can give students feedback on their performance; some examples are: (1) I commend you on your work in _____; (2) Next week try to work on _____.

In-School Work Experience

Students should be given the opportunity to try out volunteer work roles in school. A once-a-week or once-a-month experience of being a teacher's aide, a secretary's helper, an assistant custodian, or a media assistant can give students the experience of being supervised, of working on real job demands. The worker can give the student feedback about his/her ability to follow directions and communicate with a supervisor. These experiences can help students learn about their strengths as workers. Discussion in the classroom can center on appropriate work and social behaviors. The importance of personal hygiene and grooming can also be stressed in relation to the world of work. Uniforms, appropriate dress, clean hands, etc., can be discussed.

References

Adjustment services in rehabilitation: emphasis on human change. Materials Development Center, University of Wisconsin - Stout, 1971.

Brolin, D.E. Life centered career education: A competency based approach. Reston, Virginia: Council for Exceptional Children, 1978.

Cooperative planning for the handicapped: resource manual. Maryland State Department of Education, Baltimore, MD

Jones, V.F. Adolescents with behavior problems: Strategies for teaching, counseling, and parent involvement. Boston, Massachusetts: Allyn and Bacon, Inc., 1980.

Maley, D. The Maryland Plan. New York, NY: Benziger, Bruce and Glencoe, Inc., 1973.

Maryland Functional Reading Manual Vols. 1 & 2, MSDE, 1975 & the Maryland Functional Math Manual, MSDE, 1979.

Vocational student assessment. Maryland State Department of Education, Division of Vocational-Technical Education, Baltimore, Maryland, 1980.

Tindall, Lloyd, et. al. Puzzled about educating special needs students? Wisconsin Vocational Studies Center, University of Wisconsin-Madison, May 1980.

Referenced Materials

Double Action Libraries

Scholastic Press, 904 Sylvan Avenue, Englewood Cliffs, NJ 07632.

Double Action novelettes are high interest/low level stories about teenagers just out of school and on their first jobs. Reading level 3.0 to 5.0, average story length is from 15,000 to 20,000 words.

The Job Ahead

Science Research Associates, Chicago, Illinois.

High interest stories on three different reading levels about jobs. Stories contain specific job information. Four resource workbooks complement the readers.

Job Readiness Training Curriculum

Tesolowski, D.G. Materials Development Center, Stout Vocational Rehabilitation Institute, University of Wisconsin-Stout, Menomonie, WI 54751.

Inexpensive curriculum on job preparation, job seeking, and job maintenance skills. May be borrowed from Maryland Curriculum Library. May be purchased by contacting address above.

Prevocational Orientation Program

K.R. Sargent, Educational Specialist, Maryland State Department of Education, 200 W. Baltimore St., Baltimore, MD 21201.

Learning Activity Packages (LAPs) that are referenced to job and to academic areas. LAPs include a number of activities that involve reading, games, and hands-on experiences to help students learn about different career areas.

The Maryland Functional Mathematics Manual, Maryland State Department of Education, 1979.

The Maryland Functional Reading Manual, Vols. I & II, Maryland State Department of Education, 1975.

Project Basic Instructional Guide, Survival Skills, Vol. II, Maryland State Department of Education.

Project Basic Instructional Guide, Functional Writing, Vol. I, Maryland State Department of Education, 1980.

Project Basic Instructional Guide, World of Work, Vol. IV, Maryland State Department of Education, 1980.

Project Basic Instructional Guide, Citizenship, Vol. III, Maryland State Department of Education, 1980.

Suggested Teaching Activities and Projects for Instructing Vocational Prerequisites Middle School Special Needs Students. Iris McCarthy, Vocational Evaluator, Loveville Office, Loveville, MD

Activities for:

-Following directions
-Personal hygiene
-Perseverance/coping skills
-Interpersonal skills
-Attendance/punctuality
-Honesty/reliability

Vocational Reading Skills: Shoptalk, Allyn and Bacon, Inc., Rockleith, NJ

Reading series that presents skills and vocabulary needed on the job or in a vocational class. Chapters of each book are tied together by a story about a student in vocational school who is preparing for a job. Related exercises use words for the trade.